2: Jochelson E-5 (1884-1902) 1933 Yakut

Fig. 77*a* shows a Yakut man and woman transporting a Yakut plow on an ox-drawn sledge. The method of plowing may be seen in Fig. 77*b*. A model of an ox sledge is illustrated in Fig. 78. Even in summer it is much easier to transport freight on sledges where there are no roads.

Transportation

Outside the City of Yakutsk, the use of the wheeled cart, adopted from the Russians, is very limited throughout the Province. Roads suitable for wheeled transport are rare. They extend only 1036 kilometers: from Yakutsk to Viliuisk (600 km.) and from Viliuisk to Suntar (436 km.). I myself had the opportunity to use a wheeled cart when traveling from Yakutsk about sixty miles to the east to the Churupcha settlement.

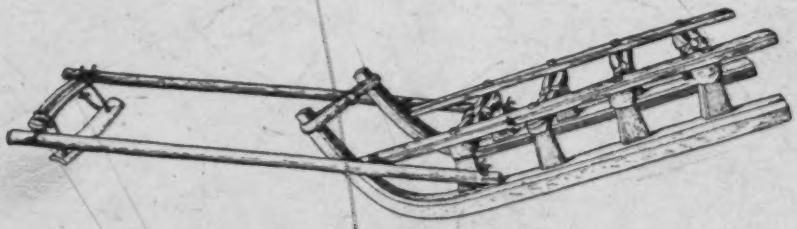

Fig. 78 (70-8832). Model of an Ox Sledge.

All the other roads are swampy and in summer were passable only on horseback; even this means of transportation is very difficult, particularly in the northern districts. In winter sledges are everywhere drawn by horses; in the northern districts reindeer and dogs are also used. Many Tungus, Lamut, and Yukaghir use the reindeer for riding, particularly in the mountainous districts between the great rivers. In summer small steamers ply the Lena and Viliui rivers. On the Yana, Indighirka, and Kolyma rivers and their tributaries large boats are used for carrying freight as well as for passengers. During the winter freight carried on pack-horses or by reindeer sledges from the shores of the Okhotsk Sea (Okhotsk, Yamsk, Ayan or Ola) over the mountains to the upper course of the Kolyma River, is floated down on pontoon-like rafts consisting of two large boats covered with a bridge. Such rafts are provided with a rudder and are propelled with long poles. As they cannot be poled up the river they are sold to the inhabitants of Nishne Kolymsk, who make boats of different sizes from them. Recently I learned that a steamer coming through Bering Strait now visits Nishne Kolymsk every summer, bringing flour and other commodities for sale or exchange for furs.

12: Galitzin --145 N-2 (no date) 1853 Yakut
116, 396, 501

"Their little boats, made with the birch-tree's bark, called vétochki, are constructed with much skill: the seams, after having been laid on with tar, become water-proof. Besides this, they make use of a kind of canoe, made with the trunk of a tree. In the building of it they begin by making on one side of the trunk a longitudinal cleft, which does not quite extend itself to the extremities; this cleft is next widened gradually by means of wedges larger and larger, so as to make a sloping opening, which, when wide enough, forms the interior of the small craft. In order to render it more spacious, sometimes they add side-planks at the upper part."

13: Sarytschew--46 N-3 (1785-90) 1806 Yakut
116, 333, 501

"Here we found some River-Tungusians, so called from their having no reindeer, and paddling incessantly about the river in their birch canoes, which serve at the same time for their habitations. These canoes are very small, and much in use among the Jakuts, in lakes and rivers. They are composed of twigs, plaited round long poles, which answer the purpose of ribs, and are altogether covered with the bark of the birch tree. The cavities are filled up with a sort of cement, which the Jakuts extract from boiled cream."

37: Dobell--346-347 G-2 (1812-13) 1830 Yakut
116, 501

"At night we encamped near the lake Khoodlugge, where we also procured fish in plenty. I observed one of the Yakuts take up a canoe, with great seeming ease, carry it a considerable distance on his shoulders, and then place it in the water. I went to examine of what materials it was composed, that could be light enough to enable him to transport it so easily. It was about twelve feet long, proportionally wide, lessening gradually, from the centre, and sharp at each end, flat bottomed, and made of birch-bark, ingeniously sewed together. It was ribbed [347] with pieces of thin birch-wood, and would carry two or three men with great safety. This sort of canoe is stronger than one would imagine from the materials of which it is composed, swims in very shallow water, and may be impelled by a simple paddle against the swiftest currents."

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122 123 provided almost our only food, in view of the lack of reindeer meat. In laying out the nets, Boldonó used his own boat, which held our attention because it was made out of poplar 114 wood. That is, in Middendorff (1) /131/ there is a note that
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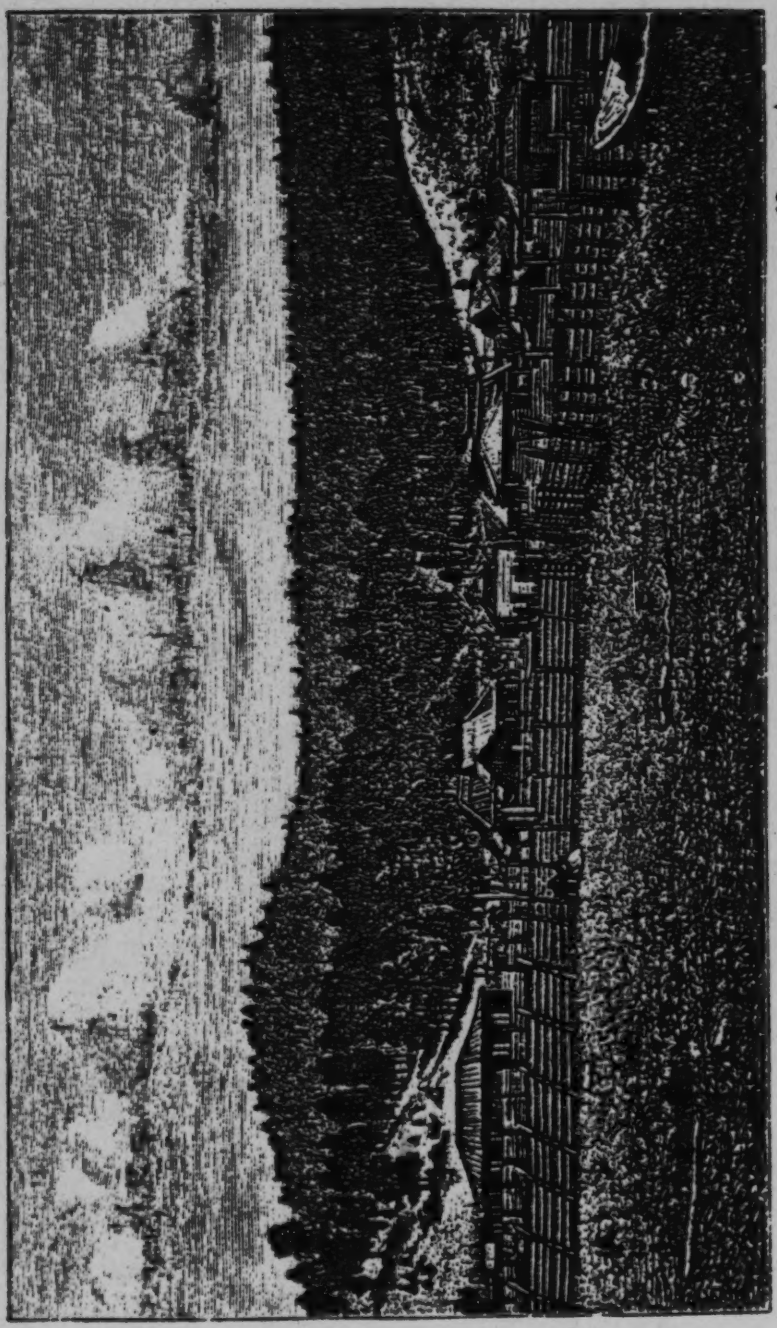
137 1. Sibirische Reise /Siberian Journey/,
501 Vol. IV, Part 1, No. 4, p. 572.
171

131] along the streams flowing into the Arctic Ocean west of the Olenék there are poplar boats, the material for which comes from the alluvial islands of the Olenék. Now, however, along the Olenék we had come across neither the aromatic poplar (Populus suaveolens Fisch.), which barely reaches the Tunguska (along it only one specimen was known to the population in the vicinity of Podwolótschnaja /Podvoloshnaya/ as a great rarity and this fell as an offering to science in 1873), nor the aspen (Populus tremula L.), which likewise has its arctic boundary much more to the south. To be sure, we heard that the first-named poplar occurs on some tributaries of the Olenék, indeed, even very far to the north, namely on the little Tyrachtán River, which empties into the Nákukyt River, therefore probably about 70° latitude, but it is said to be very rare everywhere and of so little thickness that it cannot be used for any kind of work. Therefore where did those poplar boats come from? Boldonó's boat came from the Lena, brought from there by his father. If Middendorff's statement does not simply rest on an error, he perhaps means the islands at the mouth of the Olenék, where possibly poplar trunks from the more easterly Siberian rivers, but not from the Olenék, might have been deposited by the sea.

122 On August 17 we saw a young reindeer on the bank and 123 soon afterward a human dwelling. A stop was made, and while I quickly made my magnetic observations, for which I now rarely found time, Boldonó went across the river and after some time appeared in the company of an oldish Jakuten /Yakut/. We had hoped to acquire in him a talkative successor to our all too silent guide, but in vain. Even less could be gotten out of

51: Müller--152 N-2 (1873-1875) 1882 RV2 Yakut RV2



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Shérbinsk / Zherbinsk/ Station on the Lena.

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Yakut sleigh.

Another means of overland transportation was the ski, which was lined underneath with horsehide and not reindeer suede. The Yakut boats were no different from the Tungus ones. They had a canoe (tyy) made of birch-bark or else flat-bottomed and made from planks. The larger vessel—the karbaz—had sails and was evidently borrowed from the Russians.

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Settlements and Buildings

Until recently the Yakut settlements were very much scattered about. The prevalent type of populated point (yal) consisted of one, two or three yurts standing in a row; there were less than 20 people (according to the

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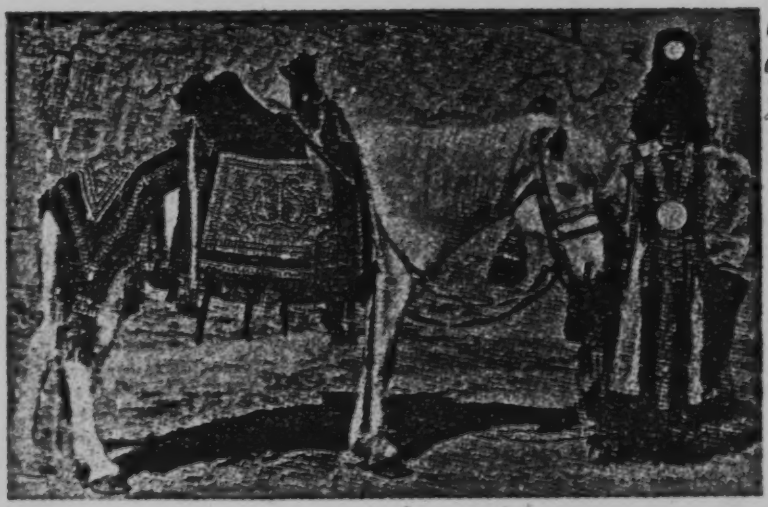

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Yakut woman with horse festively saddled.

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southern regions, agriculture and the processing industry in the central part, and reindeer-breeding and trapping in the northern regions.

Particular attention is given in Yakutiya to transportation. The socialist reconstruction of the new Republic began with almost a total lack of roads. The chief means of transportation was always and is still by boat. During the Five-Year Plans the transportation system has undergone a radical reorganization. Whereas in 1917 the entire Lena fleet consisted of 37 outmoded steamers and 113 barges, by the beginning of World War II the Yakut Republic had 127 steamers and more than 500 barges.

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Before the Revolution steamer traffic was restricted basically to the upper and lower regions of the Lena as far as the mouth of the Vilyuy. At the present time steamers sail the whole length of the Lena, Vilyuy, Aidan, Olekma, Amga, Chara, and Maya, and all the other major northern rivers.

The development of the Yakut rivers is directly connected with a very important measure adopted by the Soviet government, namely, the opening up of the Northern Seaway, which through the heroic efforts of polar explorers, sailors and fliers has been turned into a permanently operating route. In the 1920's the Vladivostok-Kolyma routes were reopened. In 1932 the icebreaker Sibiryakov made a historic journey by sailing directly and without a stop from Archangel to Vladivostok. The heroic trip made by the Chelyuskin (1933) proved the navigability of the Northern Seaway for conventional-type steamships. In 1936 there was opened a route along the river Yana, in 1937 the Anabar, and in 1938 the Olekma and the Indigirka. The opening up of the Northern Seaway sharply stepped up the carriage of freight to the northern regions of Yakutiya.

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The opening up of navigation in northern Yakutiya helped the economic resuscitation of this region. From that time on, the mining and fishing industries began to develop and strengthen. Commodity turnover increased sharply as a result. Coal, timber, salt and food products were delivered to the lower regions of various rivers from Yakutiya. The river routes now being exploited stretch more than 9000 kilometers—almost a quarter of the circumference of the globe.

River traffic has also speeded up. Comfortable double-decker ships of the Volga type run from Osetrovo to Yakutsk, a distance of about 2000 kilometers, in only 5 days.

In 1952 the Lena River Steamship Line acquired new powerful diesel ships of the latest Soviet type.

The Lena River route is now linked to the Siberian Sea artery by a direct railroad line (from Tayshet to Osetrovo docks).

The construction of overland roads has become a matter of nationwide interest in Yakutiya. About 2500 kilometers of permanent highways with winter road camps have been built. The construction and operation of highways have involved tremendous difficulties, such as coping with snowdrifts, ice floes, and ice-covered snow. Of the motor highways linking Yakutiya with the outside world, a particularly important one is the Amur-Yakutsk Highway which connects Aidan, and in winter Yakutsk, with the Ussuriysk railroad.

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At the present time freight is brought into Yakutiya by four different routes: The Upper Lena wharves (Kachug, Zhigalovo), the Osetrovo wharf, the Amur-Yakutsk Highway, and the Northern Seaway.

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Aviation routes connect Yakutsk with Irkutsk, Krasnoyarsk, Novosibirsk and Moscow. The local lines in operation are Yakutsk-Aidan, Yakutsk-Bulun-Tiksi, etc.

The centuries-old isolation of this region from the chief centers of the country is now a thing of the past. Extensive development has also

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